

## COASTAL IMPACT ASSISTANCE PROGRAM (CIAP)

(05-05-06)

**Project Title:** NORTH LAKE LERY HYDROLOGIC & BANKLINE RESTORATION

**Entity Nominating Project:** Delacroix Corporation

**Contact Information:** Agent: Robert Schroeder and Richard G. Leonhard  
C. H. Fenstermaker & Associates, Inc.  
1100 Poydras Street, Suite 1550  
New Orleans, Louisiana 70163  
504-582-2201 (office phone)

Landowner: Mike Bengé  
Delacroix Corporation  
206 Decatur Street  
New Orleans, Louisiana 70130  
504-523-2245 (office phone)

**Total CIAP Requested Funds:** \$ 5,154,330

Phase 1: Shoreline Stabilization:	\$ 467,000
Phase 2: Marsh Re-establishment:	\$ 699,998
Phase 3: Hydraulic Restoration:	\$ 453,998
Phase 4: Shoreline Armament	\$ 3,533,334

(Note: Cost does not include right-of-way acquisition; landowners are amenable to provide access for project.)

**Infrastructure Funds:** -0-

**Location:** The proposed activity is located in and adjacent to Lake Lery approximately 8.7 mile east of Belle Chase, Louisiana in St. Bernard and Plaquemines Parishes. The area in question is bordered by Lake Lery to the south, Bayou Terre Boeufs to the east, on the north by the hurricane protection levee and on the west by the Big Mar and Bayou Mandeville.

**Description:** The project consists of four (4) phases of which each could be done independent of the others: Phase 1 - stabilizing the northern shoreline of Lake Lery using native materials, Phase 2 - re-establishing a marsh substrate (platform) north of the shoreline stabilization, Phase 3 - diverting fresh water from the Caernarvon Project into the northern limits of the project site via the Forty Arpent Canal, and Phase 4 - armoring the northern shoreline with man size rock.

This project has the approval of the landowners and there are no administratively or ecologically sensitive concerns in the vicinity including oyster leases. Upon funding, design and permitting this activity would be ready to commence.

- Phase 1. Stabilizing the Northern Shoreline of Lake Lery:

Excavate an access 100' x 8' channel around the northern shoreline of the lake between Bayou Mandeville and Bayou Lery. The north bank of the channel would be positioned approximately 400' from the shoreline. The excavated material would be placed north of the channel at an elevation of + 7' NAVD with a northward descending slope to +2.5' NAVD. The spoil material would be strategically gapped to provide ingress and egress of marine organisms as well as recreation and commercial vessels.

- Phase 2. Re-establishing Marsh north of the Shoreline Stabilization:

The gap of open water between the spoil disposal area (spoil bank) and the existing shoreline will be hydraulically dredged with material excavated from the center of the lake. This material would be installed at an elevation conducive to the establishment of marsh and allowed to freely run northward.

- Phase 3. Hydrologic Restoration North of Lake Lery:

Excavate the Forty Arpent Canal and the existing bayous and canals that diverge from the canal to establish a freshwater conduit system. A sub-outlet would be constructed to divert a portion of Caernarvon Project waters into the Forty Arpent Canal to supply and distribute nutrient rich waters to the marsh located north of Lake Lery.

- Phase 4. Shoreline Armament

Upon establishment of the earthen spoil banks along the north shoreline of Lake Lery, the exposed bank would be covered with geotextile fabric and armored..

**Project Type:**

The project is a conservation activity with coastal wetland restoration and protection components, which will mitigate adverse impacts to fish, wildlife and the natural resources as well as preserving the rich cultural heritage of the region.  
(Project Types 1, 2 & 4)

**Project Justification:**

The north shoreline of Lake Lery has been retreating northward for many years continuously exposing the easily erodable marsh to wave fetch and to tidal flushing. As a result, the area continues to degrade losing valuable wetland values. Although the site is located directly adjacent to the Caernarvon Diversion, at present little or no benefits are received in this area. This project is designed to stabilize the shoreline while generating a freshwater source from the Caernarvon Diversion Project. As designed, this project could complement and enhance the Violet Freshwater Distribution Project (State Project PO-09a, formerly BS-06) should this project be authorized in the future. The project as designed will directly create approximately 248 acres

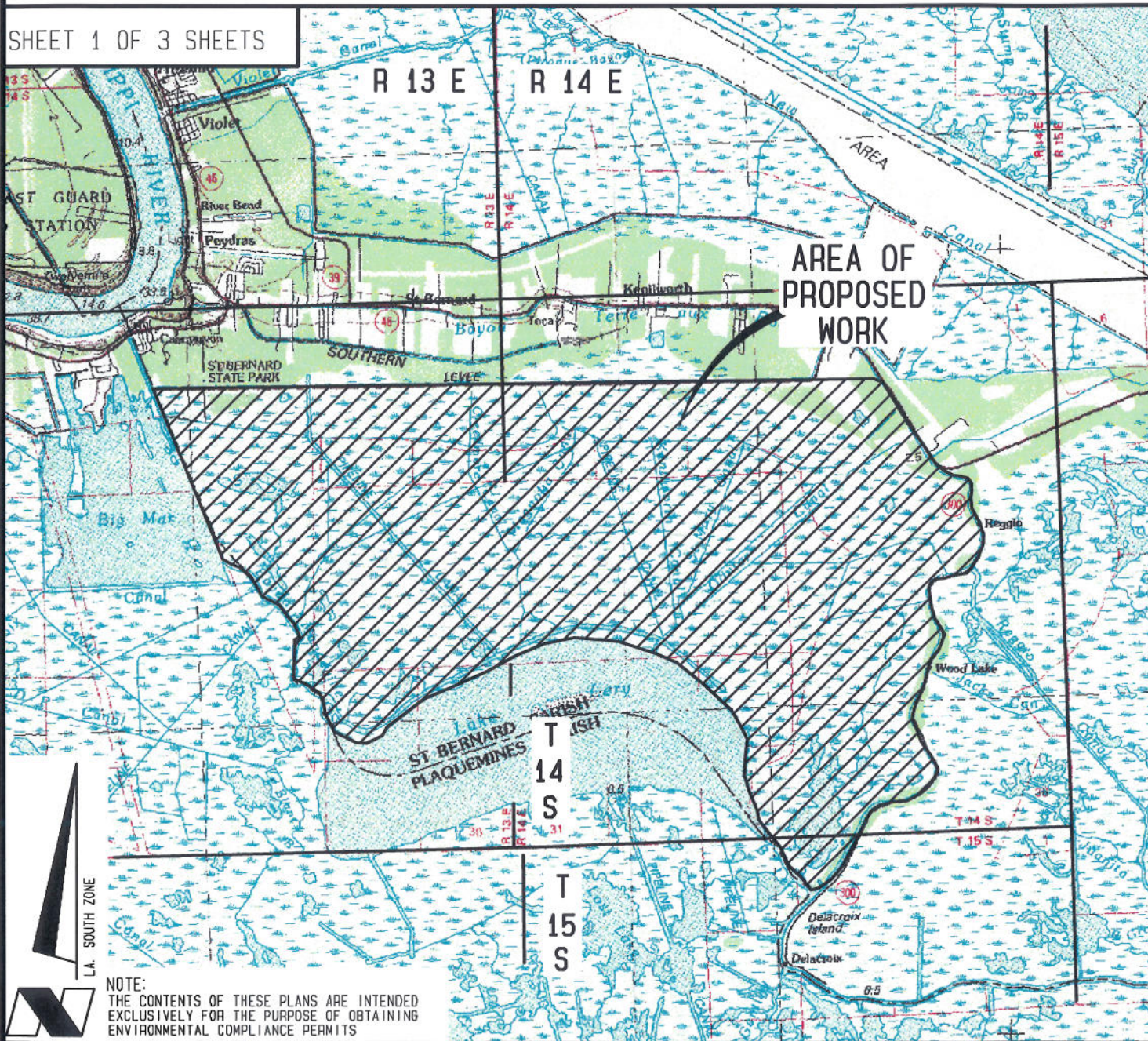
of wetlands while protecting and enhancing an additional 17,434 acres. This project will further protect the hurricane protection levee located 3.48 miles north of the shoreline stabilization phase of the project. As proposed the project would provide a natural ramping effect for the levee system that is credited with absorbing a tidal surge prior to making contact with the main line levee.

**Project Cost Share:**

-0-



SHEET 1 OF 3 SHEETS



NOTE:  
THE CONTENTS OF THESE PLANS ARE INTENDED  
EXCLUSIVELY FOR THE PURPOSE OF OBTAINING  
ENVIRONMENTAL COMPLIANCE PERMITS

REVISED

Topography obtained from U.S. Geological Survey Map  
"BLACK BAY, LA.", 1957 Edition, Revised 1973,  
& "NEW ORLEANS, LA.", 1963 Edition, Revised 1972.

VICINITY MAP

Scale: 1: 100,000

Drawn By: TNV  
Proj. Mgr.: RGL

Application By:

COASTAL IMPACT ASSISTANCE PROGRAM

May 22, 2006

## PROPOSED HYDROLOGIC & BANKLINE RESTORATION

*North Lake Lery*

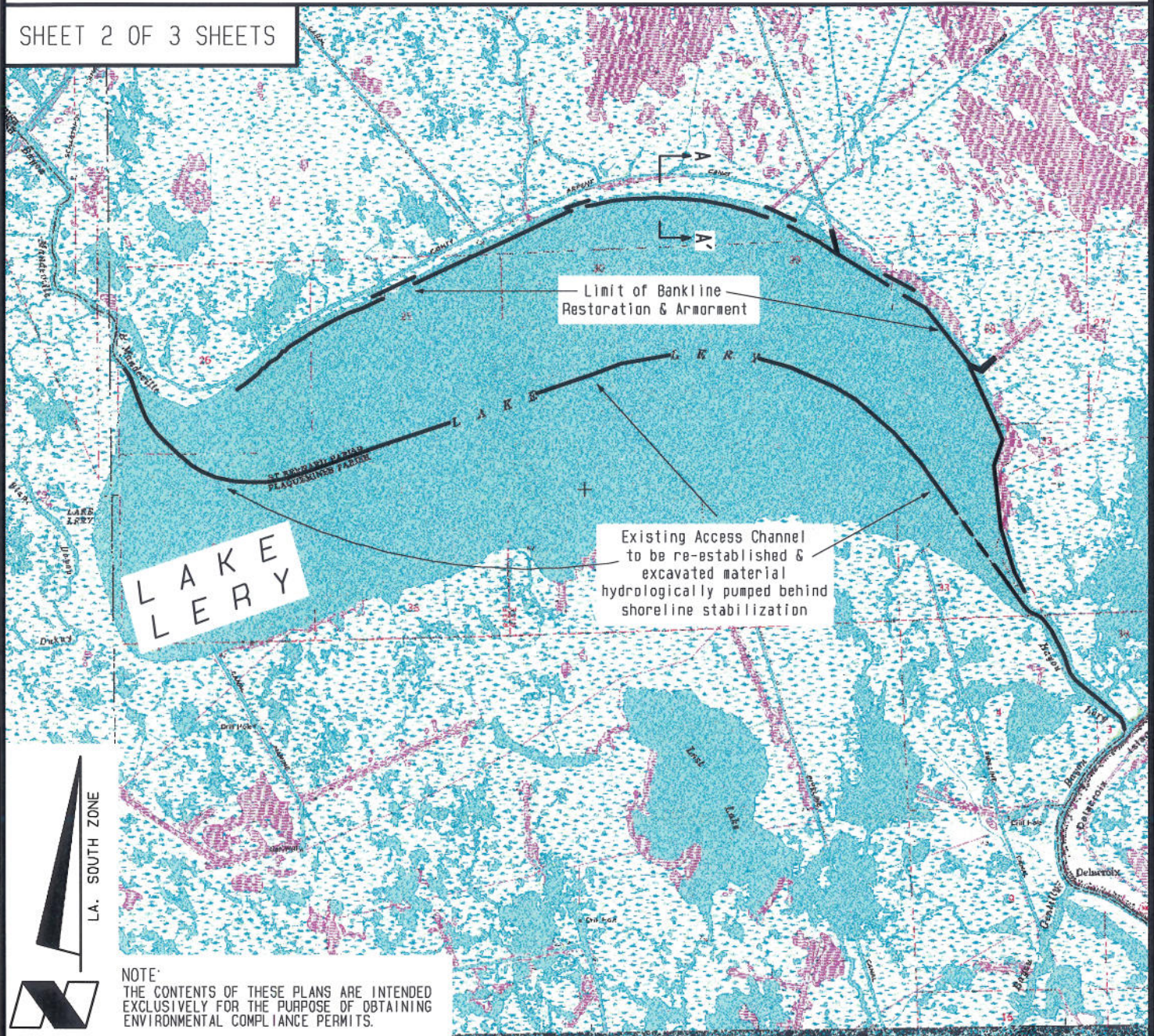
Plaquemines Parish, Louisiana

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i:/info/pcx/usgs/La/Drg/South/100k 6, 17

PREPARED BY: C. H. Fenstermaker & Associates, Inc., Lafayette & New Orleans, Louisiana & Houston, Texas



SHEET 2 OF 3 SHEETS



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REVISED:

Topography obtained from U.S. Geological Survey Quadrangles  
"BELLE CHASSE, LA" 1966 Edition, Revised 1994 & "DELACROIX,  
LA." 197 Edition, Revised 1994

VICINITY MAP

4000' 2000' 0' 4000'  
Scale 1" = 4000'

Application By:  
COASTAL IMPACT ASSISTANCE PROGRAM

## PROPOSED HYDROLOGIC & BANKLINE RESTORATION

*North Lake Lery*

May 22, 2006

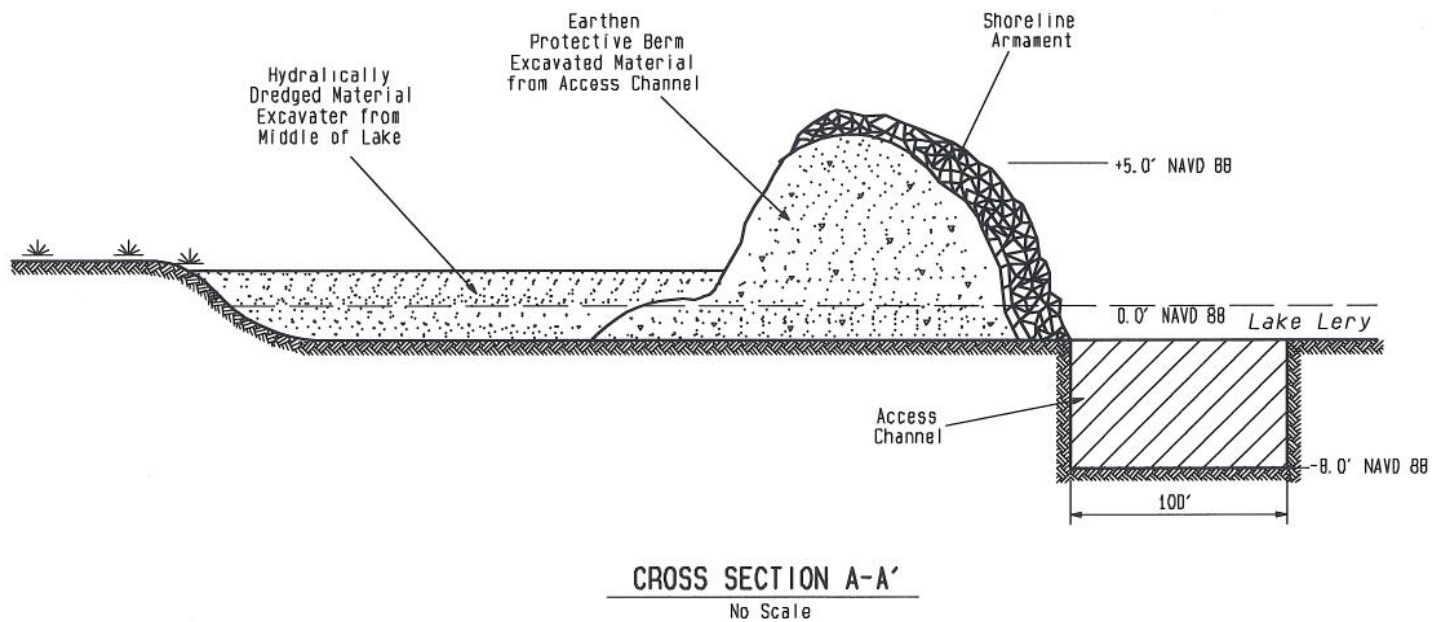
Plaquemines Parish, Louisiana

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SHEET 3 OF 3 SHEETS



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*North Lake Lery*

**Plaquemines Parish, Louisiana**

2067140 I:/Infocad/east/14S13E 166

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